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#### **Conference Paper**

### The impact of external migration from rural areas on the labor force in the fields of agriculture, forestry and fisheries in Romania

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#### THE IMPACT OF EXTERNAL MIGRATION FROM RURAL AREAS ON THE LABOR FORCE IN THE FIELDS OF AGRICULTURE, FORESTRY AND FISHERIES IN ROMANIA

#### MIHAELA-GEORGIANA OPREA<sup>1</sup>, MIHAELA-IRMA VLÅDESCU<sup>2</sup>, IRINA BÅNCESCU<sup>3</sup>

#### Abstract

In the context of an increase in demand for labor in the European Union's internal market (where there is a regulatory framework allowing free movement of labor), particularly in areas such as agriculture, construction and domestic services, romanians' tendency to emigrate increases with the opportunity to earn higher income. Migration among rural working-age people has continued to increase, leading to an increase in labor shortages in particular in the fields of agriculture, forestry and fisheries. In this work, the link between the external rural exodus and the Romanian labor market is being analyzed in the fields of agriculture, forestry and fisheries of the major branches of the national economy, which, due to the reduction in employment, loses its production potential. As a methodology we use Pearson correlation coefficient and descriptive spatial analysis to study the link between two variables: Number of temporary immigrants in working age (aged 15 to 64) in rural areas and the employed civil population in agriculture, forestry and fishing (at the NACE section level). Following the evolution of the employment in all three areas, a continuing downward trend is observed in the period analyzed from 2012 to 2019, while the number of working-age immigrants in rural areas is growing significantly. Given the current situation, the drop in the number of workers in the fields concerned deepens the disparities between rural and urban areas, jeopardizing Romania's food security.

Keywords: force, agriculture, migration, rural

JEL classification: J01, J11, J43, O15

#### **INTRODUCTION**

In the 1990s, agricultural activities accounted for the largest share of rural territory, but due to the borrowing trend of some urban-specific elements, the share of the agricultural population is decreasing. (Dona, 2005) this decline is also caused by other important factors such as: The decline in the area of arable land, the migration from village to city, and not least the increasing trend of emigration of Romanians from rural areas outside the country.

One of the reasons why people migrate is for the purpose of reducing or eliminating poverty through remittances and knowledge transfer. (Chivu L. et all, 2020) At national level, in rural areas, the poverty rate is about three times higher although the population is lower than in urban areas. The President of the national Institute of Statistics states that "the rural environment remains below the level of social and economic development of the urban area, facing specific challenges and being the source of "islands of poverty" and of social exclusion". Among the contributing factors to increasing the level of poverty and deepening the gap between the two residence environments is: early school leaving, limited educational attainment, low accessibility to health and education services, limited infrastructure and not least the low share of the working population. (INS, 2019)

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#### **MATERIALSAND METHODS**

For the research that was the basis of this paper, was used the specific methodology, which includes analyzes of the national and county statistical data provided by the statistical documents of the National Institute of Statistics.

In order to identify the link between two variables: The number of working-age temporary emigrants (aged 15 to 64) in rural areas and the employed civil population in agriculture, forestry and fishing (at the CAEN section level) we use the Pearson correlation coefficient and descriptive spatial analysis. The study follows the evolution of the workforce employed in the three areas from 2012 to 2019.

#### **RESULTS AND DISSCUSION**

The costs and risks of emigration have decreased over time and as a result the number of migrants has increased considerably. At the same time, some of the destination countries have started schemes to regularize irregular immigrants (Italy in 2002, Spain 2005) and the prospects of long-term legal residence are becoming feasible for a considerable number of Romanian migrants. In the last three decades, the domestic migration from Romania has had a pretty interesting evolution. In the early 1990, a considerable number of people changed their residence. While in the '90, migrants came mainly from urban areas and the more developed (western) regions of Romania, after 2002 the eastern (less developed) part of the country became an important source of Romanian emigration, While the rural population is becoming increasingly connected to various emigration flows (Sandu et al, 2007).

In addition to the positive economic effect of remittances (Massey et al., 1999), the countries of origin are facing a "brain drain" and a decline in the workforce. (Racovitan and Chivu coord., 2019)

Although the number of people employed in agriculture, forestry and fishing is decreasing, the number of active firms increased by more than 20.000 in 2020, compared to 2008 when just over 8000 active firms were registered. In the first semester of this year, more companies were set up with more than 10.000 companies (in agriculture, forestry and fisheries) than in the same period last year. This may be due to the fact that only by operating within a legal framework, people can receive area aid and have easy access to European funds and loans. (Nitu, 2021)

As a result, compared to other economic sectors, agriculture showed the highest growth rate of 16,3% in loans granted and commitments made by banks in May 2021, compared to the same month of the previous year. (Nica, 2021)

Since 1989, the rural environment in Romania has undergone important socio-economic changes. The changes over the last 30 years have given agriculture a different dimension, while requiring other frameworks, which require both scientific diagnosis, and a forecast of the future dimensions of these trends and of solutions to help optimize action in this field. (Palicica & Palicica, 2005)

After the fall of communism, people were free to follow their preferences in terms of choice of place of work and residence. These relocations were reflected in the high domestic migration rate recorded in 1990, when around 3,4% of the population changed residence. This trend has continued to grow and, as a result, people have even opted to leave the country's borders in order to live better.

According to the INS, the employment rate of the working-age population (15-64 years) was 65,6% in 2020, falling by 0,2 percentage points compared to the previous year, of which 17,6% represents skilled workers in agriculture, forestry and fishing. (Fig 1)

A considerable part of the rural population lives from subsistence farming due to land fragmentation, the limited use of modern technologies, infrastructure and not least to poor labor market access. It accounts for about 50% of the country's agricultural area, but accounts for only 10-15% of agricultural production. In addition, rural areas are facing an accelerated aging population. (Agiu, 2021)

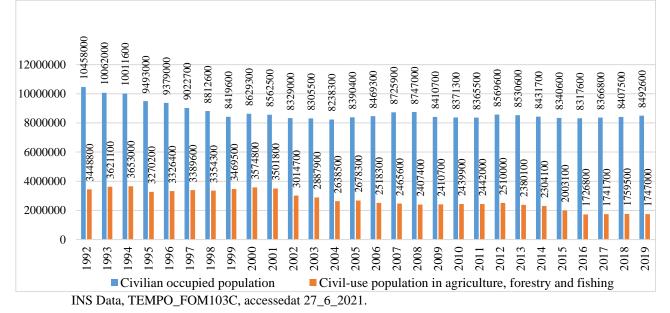


Figure 1. Development of the total employed population and the employed population of agriculture, forestry and fishing (persons)

Between 1992 and 2019, Romania's occupied population decreased by more than 1,9 million people, while the farm, forestry and fishing population halved (by more than 1,7 million people).

Since 2002, the agricultural, forestry and fishing population has been gradually declining in most parts of the country, due to falling birth rates, new jobs in urban areas and not least migration. (Dobos, 2008) (Figure 2)

During the analyzed period, we encounter different situations: increases (1995-1999), stagnation (2009-2012), respectively decreases (2001-2007). The highest value of the population in agriculture, forestry and fishing of the total employed population was recorded in theperiod 1999-2001 (41%), while the lowest value was reached in the period 2016-2019 (21%).

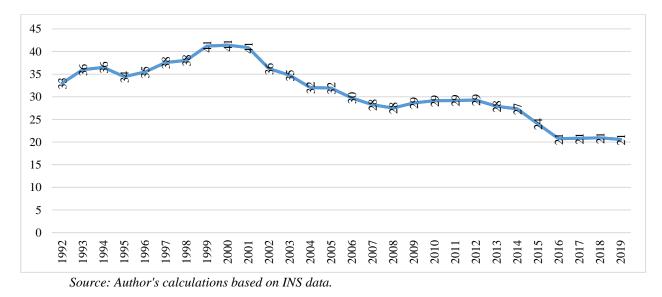


Figure 2. Civilian employed population in agriculture, forestry and fishing of the total civilian employed population (%)

Although, according to Eurostat, in 2016, Romania ranks first in the EU in the number of agricultural employees in the total number of employees (C.E., 2018), this percentage is in a continuous decrease in all counties of the country (Figure 3).

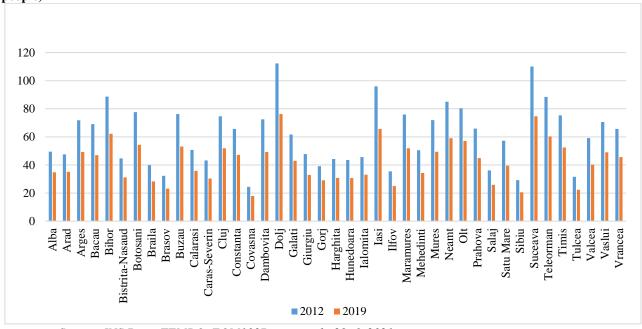


Figure 3. Civilian employed population in agriculture, forestry and fishing by counties (thousands of people)

Source: INS Data, TEMPO\_FOM103D, accesat la 29\_6\_2021.

The agricultural population, including forestry and fisheries, declined in all 41 counties in 2012-2019. The most significant losses (over 26 thousand people) were recorded in Dolj, Suceava, Iasi, Teleorman, Bihor and Neamt. This trend may be due to the emergence of new jobs, in the context of the expansion of private sector activities, migration, which has spread across all the country's counties, including the rural population which, according to the statistics, has a significantly lower standard of living than the urban population, and also, the natural decline in population.

With the poverty rate in rural areas in the country around three times higher than in urban areas, although the population is significantly lower, people choose to migrate in order to reduce or eliminate poverty through remittances and knowledge transfer. (Figure 4)

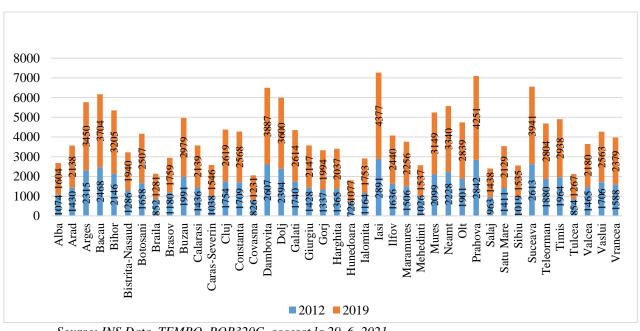


Figure 4. Temporary rural working-age emigrants in counties (persons)

Source: INS Data, TEMPO\_POP320C, accesat la 29\_6\_2021.

The counties with more than 20.000 temporary working-age emigrants between 2012-2019 are: Iasi, Prahova, Suceava, Dambovita, Bacau, Dolj, Arges, Neamt, Bihor and Mures. Also in the same counties, the highest difference (over 1.000 persons) in the number of temporary working-age emigrants in 2019 compared to 2012 is observed.

The low incomes in agriculture and lack of jobs in other areas have determined the migration from village to city, or even the migration of the young labor force out of the country, thus the majority of the population over the age of 45 are working on agricultural land (Figure 5).

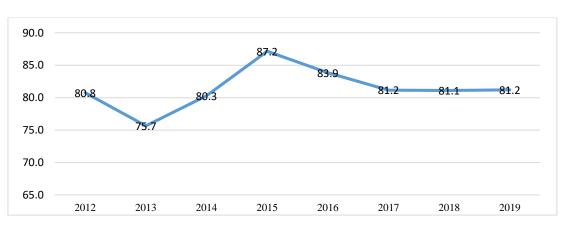


Figure 5. Share of 15-45-year-olds among all working-age emigrants (%)

Over the period analyzed, the share of 15-45-year-olds among all working-age immigrants exceeds 80%, with the exception of 2013 (75,7%).

In addition, according to the INS data, there were significant increases in female, workingage emigrants from rural areas over the period 2012-2019, while significant decreases in the femaleemployed agricultural, forestry and fishing population from 1375,8 thousand people in 2012, to 884,6 thousand people in 2019.

Over the period under review (2012-2019), the number of female employed agricultural, forestry and fishing has fallen by almost twice as high as the number of male workers.

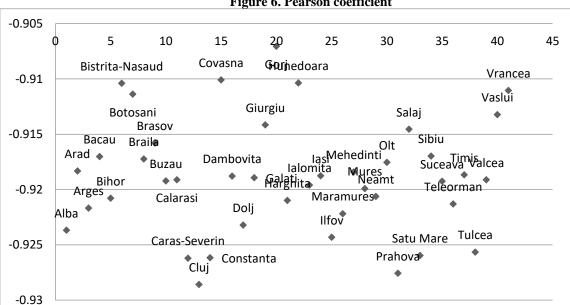


Figure 6. Pearson coefficient

Source: Author calculations based on INS data.

Source: The author

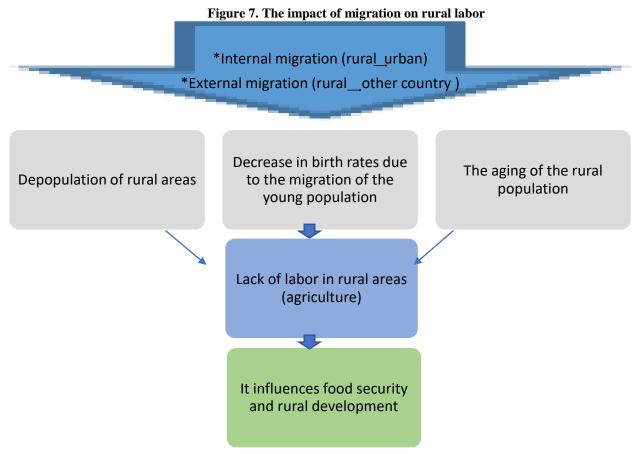
Romania is among the countries with the lowest young farmers in the European Union. According to the European Commission data published in 2018, only 10% of farmers are under 40, of which only 23% are women and the figures are steadily falling.

In order to identify the link between two variables: the number of temporary migrants of working age (aged 15 to 64) in rural areas and the civilian employed population in agriculture, forestry and fishing (in the CANE section) we used the Pearson coefficient (Figure 6).

Following the evolution of the labor force, employed in the three fields, in the analyzed period, 2012-2019, there is a continuous downward trend in all counties of the country, while the number of working-age migrants from rural areas, increases significantly. The coefficient between the two variables is thus negative, while the number of temporary emigrants from rural areas increases, the population employed in agriculture, forestry and fishing decreases.

The European Commission draws attention to the issue of an aging agricultural population, stating that "only 11% of farms in the European Union (EU) are managed by farmers under 40 years of age – and young people are left hard to be persuaded to become farmers". (E.C., 2018) at the same time, the intensification of migration has raised concerns about rural youth abandoning agriculture and the implications for agricultural production and food security.

The relationship between food security, the labor force in agriculture and migration is direct, when people consider that migration is the only option to escape hunger. Links between agriculture, food security and migration can also be indirect as a strategy for households to address income uncertainties and food insecurity risks. (Figure 7)



Source: The author

In a context of ever-changing demography, climate change and increasing pressure on all natural resources, a major transformation will be needed in the way we produce, manage and consume food. This involves moving to sustainable and resilient agricultural production systems that can help, at the same time, mitigate gas emissions and adapt to changing environmental conditions, while

ensuring food security. It is therefore necessary to rethink the food production process, to reduce waste and losses, and not least to protect biodiversity.

#### CONCLUSIONS

There are probably significant overlaps between statistical data on employment in agriculture, forestry and fisheries and informal employment in these areas of activity. The latter is a significant component which, by measuring it as accurately as possible, can contribute to the development strategies that support decent work. The link between the information raised in rural areas and national legal and institutional frameworks is basic, helping to create the context in which inclusive labor market policies for rural areas can be developed and implemented.

Addressing the development of rural areas is particularly necessary given that some areas suffer from over-average migration (these are remote and/or rural areas or unindustrialized regions without an attractive growth pole and consequently, they suffer from structural underdevelopment and lack of employment opportunities. Due to the major migration of working-age young people, the aging process in these regions is accelerating.

Understanding contemporary, external and internal migration remains a challenge. People's decision to migrate either within their own countries or across borders is influenced by a variety of factors. This study aimed at examining the complex interlinkages between migration and the civilian population in the activities of the national economy (agriculture, forestry and fisheries) by county, food security and rural development and the factors determining the rural population's decision to migrate.

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